KRAMER ELECTRONICS LTD.

USER MANUAL

MODEL:

SPK-OCA504
On-Wall Active Speakers

P/N: 2900-000724 Rev 3

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1 Introduction

Welcome to Kramer Electronics! Since 1981, Kramer Electronics has been providing a world of unique, creative, and affordable solutions to the vast range of problems that confront the video, audio, presentation, and broadcasting professional on a daily basis. In recent years, we have redesigned and upgraded most of our line, making the best even better!

Our 1,000-plus different models now appear in 11 groups that are clearly defined by function: GROUP 1: Distribution Amplifiers; GROUP 2: Switchers and Matrix Switchers; GROUP 3: Control Systems; GROUP 4: Format/Standards Converters; GROUP 5: Range Extenders and Repeaters; GROUP 6: Specialty AV Products; GROUP 7: Scan Converters and Scalers; GROUP 8: Cables and Connectors; GROUP 9: Room Connectivity; GROUP 10: Accessories and Rack Adapters and GROUP 11: Sierra Products.

Congratulations on purchasing your Kramer **SPK-OCA504** *On-Wall Active Speakers*, which are ideal for the following typical applications:

- Boardrooms
- Conference Rooms
- Educational classrooms
- Presentation venues
- Home theater

The package includes one of each of the following items:

- A pair of **SPK-OCA504** Active Speakers
- An RCA cable (2 meters)
- A speaker cable for connecting the active speaker to the passive speaker (4 meters)
- An AC power cord (1.8 meters)
- A pair of U-shaped rotating mounting brackets with 4 mounting bracket screws
- This user manual

2 Getting Started

We recommend that you:

- Unpack the equipment carefully and save the original box and packaging materials for possible future shipment
- Review the contents of this user manual
- Use Kramer high-performance high-resolution cables

Go to http://www.kramerelectronics.com to check for up-to-date user manuals, application programs, and to check if firmware upgrades are available (where appropriate).

2.1 Achieving the Best Performance

To achieve the best performance:

- Use only good quality connection cables (such as the Kramer BC-2S) to avoid interference, deterioration in signal quality due to poor matching, and elevated noise levels (often associated with low quality cables)
- Avoid interference from neighboring electrical appliances that may adversely influence signal quality
- Position your Kramer **SPK-OCA504** away from moisture, excessive sunlight and dust

To ensure that you obtain the best sound results, do not open the housing of the passive speaker or the active speaker.

3 Overview

The **SPK-OCA504** is a powered two-way speaker system designed for indoor wall mounting. The system accepts a line level stereo input and amplifies it using a built-in amplifier and outputs a speaker signal to the passive speaker.

The **SPK-OCA504** speaker system features:

- Three available inputs (that can either be connected separately or connected simultaneously to form a mix of the inputs) that consist of:
  - A Line level unbalanced stereo audio input on a 3.5mm mini jack connector
  - A balanced stereo audio input on a 5-pin terminal block connector
  - An unbalanced stereo audio input on two RCA connectors
- An output to external amplified or non-amplified speakers
- An output to an external sub-woofer
- A unique looping output, letting you chain additional pairs of active and passive speakers
- TREBLE, BASS and VOLUME control knobs
- A control panel on the back of the active speaker that controls all the functions of both speakers
- A magnetic shield
- Enhanced bass reflex design
- An integrated 2x30W stereo amplifier (no external amplifier required)
- A self adjusting power range of 90 to 240V AC
- Auto-power shutoff

The **SPK-OCA504** is enclosed in an ABS cabinet and can be mounted indoors on the wall, vertically or horizontally. The mounting brackets are made of hardened steel that attach to each speaker, letting you rotate each speaker to the left or right.

Figure 1 and Figure 2 show examples of how the speakers can be installed in conference room and home theater setups, respectively.

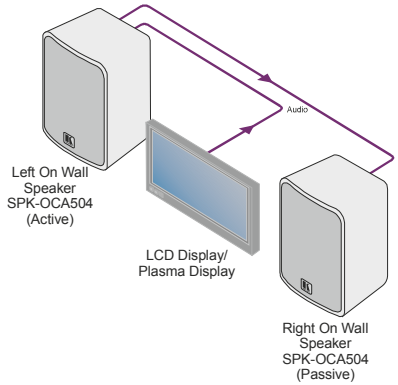

Figure 1: Active On-Wall Speakers in a Home Theater Setup

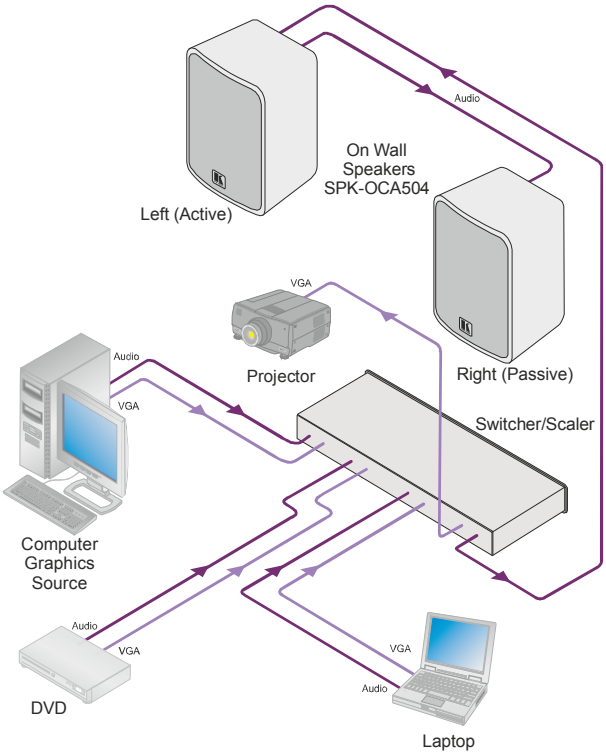

Figure 2: Active On-Wall Speakers in a Conference Room Setup

4 Your SPK-OCA504

This section defines the active **SPK-OCA504**:

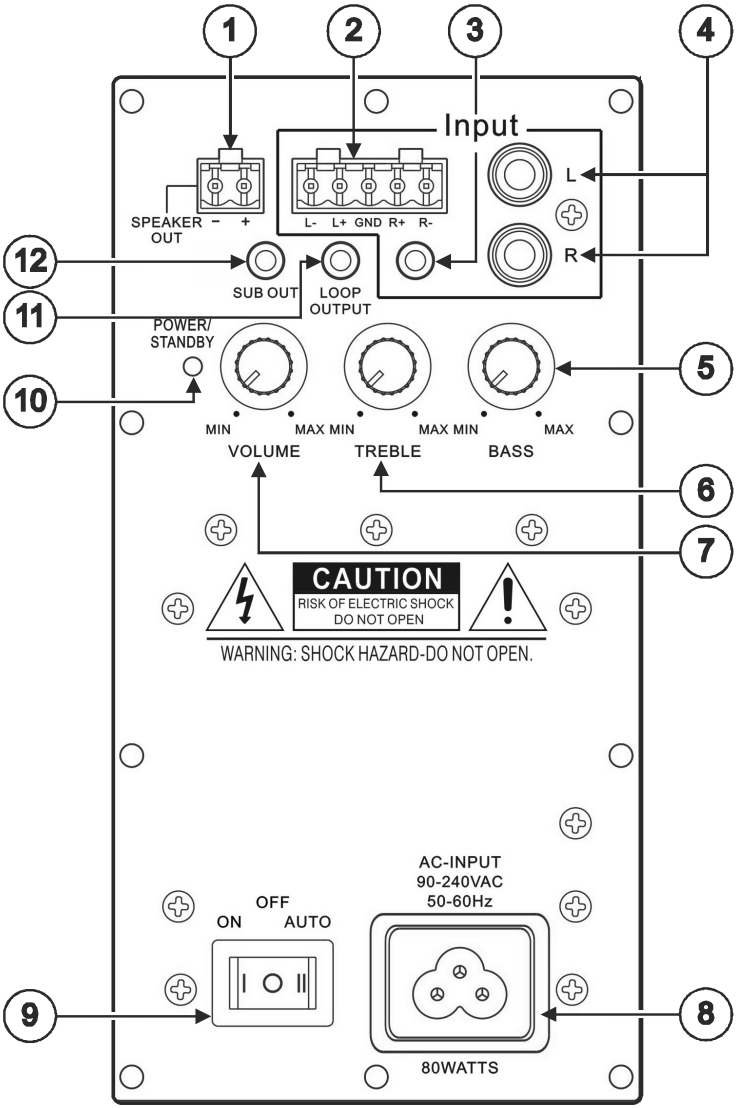

Figure 3: SPK-OCA504 Active Speaker

#	Feature		Function
1	SPEAKER OUT Connectors		Connect the active speaker to the (+) and (-) stereo sockets on the passive speaker The L speaker is active and the R speaker is passive
2	*INPUT* Connectors	5-pin Terminal Block	Connect the audio source to one or more of the input connectors
3		3.5mm Mini Jack	
4		L and R RCA	
5	*BASS* Control Knob		Rotate the button to control the bass
6	*TREBLE* Control Knob		Rotate the button to control the treble
7	*VOLUME* Control knob		Rotate the button to adjust the audio volume
8	AC-Input Power Supply		Connect to the AC power cord
9	POWER Switch		For turning the unit ON (I), OFF (0) or AUTO shutoff (II) When selecting the AUTO shutoff mode, the speaker enters the standby mode when idle for over 10 minutes
10	*POWER/STANDBY* LED		Illuminates in green when powered (POWER switch set to ON or AUTO) illuminates in red when in the standby mode (POWER switch is set to AUTO) In the AUTO mode, the LED illuminates green if an input signal is detected and illuminates red if idle for over 10 minutes
11	*LOOP OUTPUT* 3.5mm Mini Jack Connector		Connect to another pair of active speakers
12	*SUB OUT* 3.5mm Mini Connector		If required, connect an active sub-woofer to this output for maximum bass reproduction

5 Installing the Speakers

This section explains how to:

- Choose the best location for your speakers (see Section 5.1)
- Install the speaker wires (see Section 5.2)

5.1 Choosing the Best Location

Before installing the speakers:

- Experiment by placing the speakers in different locations before finally deciding on the most suitable location
- Be sure that the wall type is appropriate for the mounting brackets, that is, either solid wood, bricks, concrete, hollow building blocks, or wood studs. You cannot mount the brackets on gypsum walls
- Check that the mounting location is free of obstructions, such as electrical piping, AC ducts or water lines, and so on

5.2 Installing the Speaker Wires

To install the speakers, do the following:

1. Connect the + and - stereo sockets of the active speaker to the + and - stereo sockets of the passive speaker using the cable supplied, as follows:

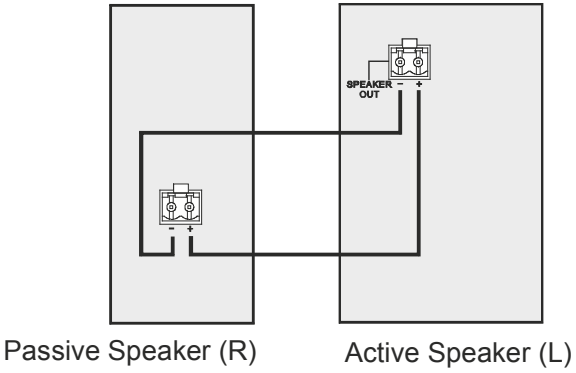

Figure 4: Connecting the Active Speaker to the Passive Speaker

2. Connect the audio source (for example, a CD or a DVD player and so on) to one of the INPUT connectors on the active speaker.

3. Connect the power.

4. Adjust the volume on the input source.

5. Adjust the volume control on the rear side control panel.

6. Adjust the bass and treble control on the rear side control panel.

7. If required, connect an additional set of speakers by connecting the LOOP OUTPUT connector to the input of a second active speaker.

8. If required, mount the speaker on the wall via the removable mounting brackets. To do so:

    - Mark the location of the mounting holes
    - Screw the mounting screws (not included in the package) into the mounting holes
    - Slide the mounting bracket over the mounting screws so that the mounting bracket is secured to the surface

6 Technical Specifications

INPUT:	1 Line level unbalanced stereo audio on a 3.5mm mini connector, 1 Line level balanced stereo audio on a terminal block connector 1 Line level unbalanced stereo audio on Left and right RCA connectors
OUTPUTS:	1 speaker (to connect to the external passive speaker) 1 active sub-woofer on a 3.5mm mini connector 1 looping output on a 3.5mm mini connector
SPEAKER TYPE:	Two-way bass reflex, on-wall speaker
WOOFER:	5.25" (133mm) polypropylene cone/rubber surround
TWEETER:	0.51" (13mm) Mylar tweeter
FREQUENCY RESPONSE:	45Hz to 20kHz @-10dB
IMPEDANCE:	4Ω
MAX. SPL:	110dB
BUILT-IN POWER AMPLIFIER:	2x30W RMS
CONTROL:	Volume, bass and treble control
POWER SUPPLY:	90-240V AC self adjusting
STANDBY MODE POWER CONSUMPTION:	0.7W
MATERIALS:	Frame, grill and brackets steel; cabinet ABS
INSTALLATION CLEARANCE:	Front panel to wall (with mounting bracket): 22cm Back panel to wall (with mounting bracket): 4.5cm
DIMENSIONS:	18.3cm x 17cm x 24.4cm (7.2" x 6.7" x 9.61") W, D, H
DIMENSIONS WITH MOUNTING BRACKET:	18.3cm x 17.2cm x 26.5cm (7.2" x 6.77" x 10.43") W, D, H
ACCESSORIES:	1 pair of U-shaped rotating mounting brackets with 4 mounting bracket screws, 1.8 meter power cord, 4 meter loudspeaker cable and a 2 meter RCA cable
WEIGHT:	Active speaker 2.7kg (5.95lbs) approx. Passive speaker 2.2kg (4.85lbs) approx.
WEIGHT WITH MOUNTING KIT:	Active speaker 3.1kg (6.83lbs) approx. Passive speaker 2.6kg (5.73lbs) approx.
Specifications are subject to change without notice at http://www.kramerelectronics.com	

LIMITED WARRANTY

We warrant this product free from defects in material and workmanship under the following terms.

HOW LONG IS THE WARRANTY

Labor and parts are warranted for one year from the date of the first customer purchase.

WHO IS PROTECTED?

Only the first purchase customer may enforce this warranty.

WHAT IS COVERED AND WHAT IS NOT COVERED

Except as below, this warranty covers all defects in material or workmanship in this product. The following are not covered by the warranty:

1. Any product which is not distributed by us or which is not purchased from an authorized Kramer dealer. If you are uncertain as to whether a dealer is authorized, please contact Kramer at one of the agents listed in the Web site www.kramerelectronics.com.
2. Any product, on which the serial number has been defaced, modified or removed, or on which the WARRANTY VOID IF TAMPERED sticker has been torn, reattached, removed or otherwise interfered with.
3. Damage, deterioration or malfunction resulting from:
   i) Accident, misuse, abuse, neglect, fire, water, lightning or other acts of nature
   ii) Product modification, or failure to follow instructions supplied with the product
   iii) Repair or attempted repair by anyone not authorized by Kramer
   iv) Any shipment of the product (claims must be presented to the carrier)
   v) Removal or installation of the product
   vi) Any other cause, which does not relate to a product defect
   vii) Cartons, equipment enclosures, cables or accessories used in conjunction with the product

WHAT WE WILL PAY FOR AND WHAT WE WILL NOT PAY FOR

We will pay labor and material expenses for covered items. We will not pay for the following:

1. Removal or installations charges.
2. Costs of initial technical adjustments (set-up), including adjustment of user controls or programming. These costs are the responsibility of the Kramer dealer from whom the product was purchased.
3. Shipping charges.

HOW YOU CAN GET WARRANTY SERVICE

1. To obtain service on you product, you must take or ship it prepaid to any authorized Kramer service center.
2. Whenever warranty service is required, the original dated invoice (or a copy) must be presented as proof of warranty coverage, and should be included in any shipment of the product. Please also include in any mailing a contact name, company, address, and a description of the problem(s).
3. For the name of the nearest Kramer authorized service center, consult your authorized dealer.

LIMITATION OF IMPLIED WARRANTIES

All implied warranties, including warranties of merchantability and fitness for a particular purpose, are limited in duration to the length of this warranty.

EXCLUSION OF DAMAGES

The liability of Kramer for any effective products is limited to the repair or replacement of the product at our option. Kramer shall not be liable for:

1. Damage to other property caused by defects in this product, damages based upon inconvenience, loss of use of the product, loss of time, commercial loss; or:
2. Any other damages, whether incidental, consequential or otherwise. Some countries may not allow limitations on how long an implied warranty lasts and/or do not allow the exclusion or limitation of incidental or consequential damages, so the above limitations and exclusions may not apply to you.

This warranty gives you specific legal rights, and you may also have other rights, which vary from place to place.

NOTE: All products returned to Kramer for service must have prior approval. This may be obtained from your dealer.

This equipment has been tested to determine compliance with the requirements of:

EN-50081:	"Electromagnetic compatibility (EMC); generic emission standard. Part 1: Residential, commercial and light industry"
EN-50082:	"Electromagnetic compatibility (EMC) generic immunity standard. Part 1: Residential, commercial and light industry environment".
CFR-47:	FCC* Rules and Regulations: Part 15: “Radio frequency devices Subpart B Unintentional radiators”

CAUTION!

- Servicing the machines can only be done by an authorized Kramer technician. Any user who makes changes or modifications to the unit without the expressed approval of the manufacturer will void user authority to operate the equipment.
- Use the supplied DC power supply to feed power to the machine.
- Please use recommended interconnection cables to connect the machine to other components.

* FCC and CE approved using STP cable (for twisted pair products)

For the latest information on our products and a list of Kramer distributors, visit our Web site where updates to this user manual may be found.

We welcome your questions, comments, and feedback.
Web site: www.kramerelectronics.com
E-mail: info@kramerel.com

SAFETY WARNING
Disconnect the unit from the power supply before opening and servicing